



Earth Science Working Group Kick-Off Meeting (FINAL)

January 8, 2004

Metrics Planning and Reporting (MPAR) WG

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Orlando WG Comments Included

Final Package - March 17, 2004

MPAR WG

□ Mission Statement for the WG

- Review and recommend program-level performance metrics and collection tools that measure how well each data activity supports NASA ESE science, application and education programs

□ Membership in WG

- WG membership open to NASA Earth Science Enterprise data and service provider community (DAACs, REASoN projects, SIPs, etc.)
- We are open to suggestions for participation by others

□ Scope of Work

- WG provides on-going MPAR review, evaluation, recommendations and metrics evolution for the NASA ESE data and service provider community
- WG recommends additions, deletions or modifications to set of metrics. Recommendations may be approved or rejected by NASA ESE. If approved, NASA ESE funded data and service providers will have to make recommended changes in their reporting

□ What's Been Done to Date?

- MPAR report and recommendations included in study team's Final Report
 - Key Recommendation (#5):

It is recommended that a MPAR working group (WG) be established for ongoing evaluation and evolution of appropriate metrics. The MPAR WG would also look into means of minimizing the impact of program metrics collection on DSPs. This may include exploring commonality among metrics to be reported by various DSPs and recommending/providing tools to assist in gathering, maintaining and reporting on metrics.
 - Other recommendations in backup charts; MPAR WG will consider them as they apply to the work of the group.
- WG Charter drafted
- Current in-use metrics compiled
- Draft core (baseline) set of metrics developed
- Candidate tools surveyed (COTS, ESIP Federation, EDGRS); 2 proposed for implementation - Federation and EDGRS

□ What we hope to do today:

- Adopt WG's charter
- Select a co-chair
- Adopt 'Rules of Operation'
- Discussion of relationship between ESE / REASoN metrics and ESIP Federation Metrics activities
- Discussion of core (baseline) set of metrics, including known issues:
 - Consistent definitions
 - Identification of outcome and impact metrics
 - Resources required to measure metrics
 - Program-Level vs Activity-Level metrics
- Information briefings and discussion on 2 metrics tools proposed for data collection - ESIP Federation Tool and EDGRS (ESDIS Data Gathering and Reporting System)
- Discussion on Work Plan for remainder of FY2004

□ Draft set of core (baseline) Program-Level Metrics

- Number of Distinct Users
- Characterization of Distinct Users Requesting Products and Information (by Internet domain)
- Number of Products Delivered to Users
- Number of Distinct Product Types Produced and Maintained by Project
- Volume of Data Distributed
- Total Volume of Data Available for Research and Other Users
- Delivery Time of Products to Users
- Support for ESE Science Focus Areas *
- Support for ESE Applications of National Importance *
- Support for ESE Education Initiatives *

* *When applicable*

MPAR WG Recommendations to NASA HQ / ESE:

- ❑ Recommendation can (per charter) be:
 - To add, revise or drop one or more metrics;
 - To adopt a particular collection / reporting tool.
- ❑ Recommendation must be accompanied by:
 - Definition and rationale (e.g. what does this metric mean, why does it matter?);
 - Collection method (how would this metric be collected, based on what input?);
 - Intended Use (what analysis would this metric allow, how would the program office or DSPs use it?);
 - Justification (e.g. how does this metric measure how a DSP supports specific ESE objectives);
 - Impact analysis (e.g. cost and effort required to implement).
- ❑ MPAR WG should consider 'beta testing' draft recommendations to prove feasibility of collection or feasibility of use of a proposed tool prior to final recommendation.

MPAR WG Internal Processes:

- Proposed Process to adopt recommendation (Depending on recommendation, WG Chair can determine degree of review and number of necessary steps):
 - Majority vote of MPAR WG members to adopt proposed recommendation as a WG draft;
 - One MPAR WG member appointed shepherd
 - 30 day period of ESE activity review (to include other Earth Science WGs) for WG draft (not all ESE activities will be MPAR WG members) coordinated by shepherd;
 - Shepherd assembles comments, drafts revisions to recommendation per activity feedback, presents summary of feedback and draft revisions to full WG;
 - WG considers revisions and need for 'beta test';
 - Majority vote of MPAR WG members to adopt revised WG draft;
 - Shepherd coordinates Impact Analysis, Rationale, Justification
 - Two thirds vote of MPAR WG members to adopt final recommendation package and send to HQ / ESE.

MPAR WG Internal Processes:

❑ Officers.

- Co-Chair, elected by majority of MPAR WG members, one year term.
- Executive secretary, appointed by NASA/GSFC
 - SGT contract support
 - Facilitate WG coordination, documentation, and action items
- Core WG membership includes DSP and User representation.
- All classes of ESE DSPs to be included.
- Form Subgroups, elect chairs, per charter as needed.

❑ Frequency of Meetings.

- Telecons, as required
- Semi-Annual, or as needed, meetings.
- Make the most of e-mail, posts to MPAR WG website, and groupware.

January 2004 - September 30, 2004 (synch up on fiscal years)

- ❑ Adopt charter, elect Co-Chair, adopt rules of operation.
- ❑ Review draft Program Metrics, prepare recommendation(s) for NASA HQ on these, by March, 2004.
- ❑ Review collection tools (e.g. U MD and EDGRS) and concepts of operation, make recommendation on these, by March 2004.
- ❑ Secure HQ approval of metrics/tools baseline by April 2004.
- ❑ Complete implementation of collection tool(s), by June, 2004.
- ❑ Monitor initial metrics collection, assess effectiveness of collection and reporting process and assess quality of the collected metrics.
- ❑ Adopt an annual cycle for review of the metrics baseline that meets HQ / ESE requirements.
- ❑ Provide first year progress report; FY05 work plan, September 30, 2004.

- ❑ **Recommendation #1:** It is recommended that ESE not seek exceptions to the current set of NASA regulations and guidelines for solicitation opportunities and funding instruments.

- ❑ **Recommendation #2:** It is recommended that the appropriate level of accountability for a DSP be defined by a combination of adherence to NASA's "Principal Purpose Test," as found in NASA Procedures and Guidelines (NPG) 58001, Part 1260.12, and implementation of the SEEDS accountability classification for DSPs [see the Formulation Team Report]. The levels of accountability required depend on the levels of service, and the metrics given in the following tables are examples of how the accountability and the levels of service could be ensured. Both NASA funding instrument reporting requirements and a SEEDS level of accountability can be used to define appropriate metrics collection and reporting as a function of roles and responsibilities for potential DSPs.

- ❑ **Recommendation #3:** Because of the need to improve sponsor-required user satisfaction metrics or outcome metrics, it is recommended that this class of metrics be studied further. An extension of this study should be to identify metrics that are directly traceable to the objectives of the ESE science and applications program, so that the effectiveness of the support that ESE data management activities provide to the science and applications program can be documented, and thus the contribution of ESE data management to successful outcomes of the science and applications program can be shown.

- **Recommendation #4:** It is recommended that the SEEDS Program Office ... take on the responsibility of managing and collecting program level metrics and accomplishments as an enterprise function. It is recommended that metrics activity by the SEEDS Program Office be limited to those metrics that are required for program level assessment and monitoring, and the SEEDS Program Office not become involved with metrics that are used internally by data management activities for their own management and monitoring. Thus the SEEDS Program Office would be involved with one set of defined metrics for ESE data and information management and services, and would obtain from each data management activity that subset of the metrics appropriate for it (e.g. metrics required from operating activities would not be the same as those appropriate for research activities). The SEEDS Program Office would maintain and update the program level metrics over time.
- **Recommendation #5:** It is recommended that a MPAR working group (WG) be established for ongoing evaluation and evolution of appropriate metrics. The MPAR WG would also look into means of minimizing the impact of program metrics collection on DSPs. This may include exploring commonality among metrics to be reported by various DSPs and recommending/providing tools to assist in gathering, maintaining and reporting on metrics.
- **Recommendation #6:** It is recommended that future solicitations for DSPs include a requirement for the bidders to suggest a set of metrics that demonstrate how their proposed activities will address the goals of ESE's science and applications programs and require participation by the selected DSPs in the MPAR WG. The solicitations also must require the DSPs to gather and report on an agreed upon set of metrics.